

2. (AMENDED) The recombinant non-yeast DNA according to claim 1, wherein the poorly suited codons are selected from the group consisting of codons whose frequency of use by yeasts is less than about 13 per 1000 codons.
3. (AMENDED) The recombinant non-yeast DNA according to claim 2, wherein the poorly suited codons are selected from the group consisting of CTC, CTG and CTT, which encode leucine, CGG, CGC, CGA, CGT and AGG, which encode arginine, GCG and GCC, which encode alanine, GGG, GGC and GGA, which encode glycine, and CCG and CCC, which encode proline.
- B2
Cod. 4. (AMENDED) The recombinant non-yeast DNA according to claim 3, wherein the poorly suited codons are selected from the group consisting of CTC and CTG, which encode leucine, CGG, CGC, CGA, CGT and AGG, which encode arginine, GCG and GCC, which encode alanine, GGG and GGC, which encode glycine, and CCG and CCC, which encode proline.
- Sub OC2 5. (AMENDED) The recombinant non-yeast DNA according to claim 1, wherein the codons that are well- suited to yeasts are selected from the group consisting of codons whose frequency of use by yeasts is greater than 15 per 1000 codons.
6. (AMENDED) The recombinant non-yeast DNA according to claim 5, wherein the well- suited codons are selected from the group consisting of TTG and TTA, which encode leucine, AGA, which encodes arginine, GCT and GCA, preferably GCT, which encode alanine, GGT, which encodes glycine, and CCA, which encodes proline.

7. (AMENDED) The recombinant non-yeast DNA according to claim 1, wherein the region having a high content of codons that are poorly suited to yeasts contains at least 2 poorly suited codons among 10 consecutive codons, wherein the poorly suited codons are adjacent or nonadjacent to each other.
8. (AMENDED) The recombinant non-yeast DNA according to claim 7, wherein the region having a high content of poorly suited codons contains 2, 3, 4, 5 or 6 poorly suited codons per 10 consecutive codons, or contain at least 2 or 3 adjacent poorly suited codons.
- B2
COO-
Sub
PC2
9. (AMENDED) A recombinant non-yeast cDNA, which encodes a protein of interest, wherein an unmodified DNA corresponding to said recombinant non-yeast DNA contains a region of high CTC codon or high CTC+CTG codon content, wherein a number of said CTC codons and/or CTG codons are replaced in said recombinant non-yeast DNA with TTG and/or TTA codons, and wherein the number of replaced codons is sufficient to permit expression in yeasts.
10. (AMENDED) The recombinant non-yeast cDNA according to claim 9, wherein the CTC codon(s) and/or the CTG codon(s) are replaced with TTG codon(s).
11. (AMENDED) The recombinant non-yeast cDNA according to claim 9, wherein the region having a high content of leucine contains 2, 3, 4, 5 or 6 leucines per 10 consecutive amino acids, or contain at least 2 or 3 adjacent leucines.

12. (AMENDED) The recombinant non-yeast DNA according to claim 1, wherein the general content of poorly suited codons in the corresponding unmodified DNA is at least 20% of the total number of codons.
13. (AMENDED) The recombinant non-yeast DNA according to claim 1, wherein replaced codons are in the 5' region.
14. (AMENDED) The recombinant non-yeast DNA according to claim 13, wherein replaced codons are only in the 5' region.
- B2
codon
15. (AMENDED) The recombinant non-yeast DNA according to claim 1, wherein the corresponding unmodified DNA is a plant DNA.
16. (AMENDED) The recombinant non-yeast DNA according to claim 15, wherein the corresponding unmodified DNA is selected from the group consisting of a dicotyledonous plant DNA and a monocotyledonous plant DNA.
17. (AMENDED) The recombinant non-yeast DNA according to claim 16, wherein the corresponding unmodified DNA is selected from the group consisting of a wheat DNA, a barley DNA, an oat DNA, a rice DNA, a maize DNA, a sorghum DNA, and a cane sugar DNA.
18. (AMENDED) The recombinant non-yeast DNA according to claim 1, wherein the protein of interest is an enzyme.
19. (AMENDED) The recombinant non-yeast DNA according to claim 18, wherein the enzyme is a cytochrome P450.

20. (AMENDED) The recombinant non-yeast DNA according to claim 19, wherein the corresponding unmodified DNA has a nucleotide sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:10.

21. (AMENDED) The recombinant non-yeast DNA according to claim 19 having a nucleotide sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, and SEQ ID NO:14.

B2
cont.
22. (AMENDED) A chimeric gene which comprises a recombinant non-yeast DNA sequence according to claim 1 operably linked to heterologous 5' and 3' regulatory elements which are able to function in a yeast.

23. (AMENDED) A yeast transformation vector comprising at least one chimeric gene according to claim 22.

24. (AMENDED) A process for transforming a yeast cell using a vector according to claim 23 comprising contacting a yeast cell with said vector under conditions that permit said yeast cell to take up said vector.

25. (AMENDED) A transformed yeast for expressing a protein of interest, comprising the chimeric gene according to claim 22.

26. (AMENDED) The yeast according to claim 25, wherein it is selected from the group consisting of *Saccharomyces*, *Kluyveromyces*, *Hansenula*, *Pichia* and *Yarrowia*.

27. (AMENDED) A process for producing a heterologous protein of interest in a transformed yeast, comprising:

a) transforming a yeast with a vector which contains a recombinant non-yeast DNA according to claim 1 operably linked to heterologous 5' and 3' regulatory elements which are able to function in a yeast;

b) culturing the transformed yeast; and

c) extracting the protein of interest from the yeast culture.

B²
Cont.
28. (AMENDED) A process for transforming a substrate by enzymic catalysis using an enzyme which is expressed in a yeast comprising:

a) culturing, in the presence of the substrate to be transformed, the yeast according to claim 25; and

b) recovering the transformed substrate from the yeast culture.

REMARKS

This paper is being filed in response to the Office Action dated March 22, 2002. Applicants request a one-month extension of time and enclose the fee required under 37 C.F.R. §1.17(a)(1). Applicants enclose herewith a Form PTO-1449. Applicants respectfully request reconsideration of the above-identified application in light of the amendments and remarks made herein.

Claims 1-28 are pending. Claims 1-28 have been amended. A rewritten specification paragraph and a rewritten abstract appear in the preceding "IN THE SPECIFICATION" section. Rewritten claims appear in the preceding "IN THE CLAIMS" section. Attached hereto is a marked-up version of the changes made by the instant amendment captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE" and is included pursuant to 37 C.F.R. §1.121(c)(ii). Should any discrepancies be discovered in the rewritten